62. The DNA segment of claim 59, comprised within the recombinant herpes simplex viral vector identified as rHSV d27.1rc (ATCC XXXXX).

2. RESPONSE

2.1 STATUS OF THE CLAIMS

Claims 41 to 60 were pending at the time of the Action, and remain pending in the case, as amended hereinabove. Claims 61 and 62 are added herein. For the convenience of the Examiner, a clean copy of the claims as amended are attached in Appendix A.

Claims 41-62 are now pending in the case.

Applicants note for the record that all claims were free from rejection under 35 U. S. C. §101; claims 46-60 were free from rejection under 35 U. S. C. §112, 1st paragraph, and claims 41-45, 47-55, and 59 were free from rejection under 35 U. S. C. §102.

2.2 REQUEST FOR CONTINUED EXAMINATION (RCE)

The present RCE is filed within the statutory six month period after the Final Action and is timely in light of the enclosed request for extension of time and fees.

2.3 SUPPORT FOR THE CLAIMS

Support for each of the claims as amended herein is provided by the specification and original claims as filed. Applicants certify that no new matter has been introduced as a result of the accompanying amendment.

2.4 THE OBJECTION TO CLAIMS 53 AND 57 UNDER 37 C. F. R. § 1.75(C) HAS BEEN OVERCOME.

Claims 53 and 57 were objected to because of minor informalities. Applicants have amended these claims incorporating the helpful suggestions of the Examiner in the Final Action to rectify this objection. As such, Applicants believe that all claims are free from further objection under the Statute for technical informalities.

2.5 THE REJECTION OF CLAIMS 41-60 UNDER 35 U. S. C. §112, 2ND PARAGRAPH, HAS BEEN OVERCOME.

Claims 41 to 60 have been rejected under 35 U. S. C. §112, 2nd paragraph, as being vague and indefinite as allegedly failing to particularly point out and claim the subject matter that Applicants regard as their invention. Applicants have amended the claims incorporating the helpful suggestions of the Examiner in the Final Action to overcome these rejections. As such, Applicants believe that all claims are free from further rejection under this section of the Statute.

2.6 THE REJECTION OF CLAIMS 41-45 UNDER 35 U. S. C. §112, 1ST PARAGRAPH, CAN BE OVERCOME BY THE SUBMISSION OF BIOLOGICAL MATERIAL.

Claims 41-45 remain rejected under 35 U. S. C. §112, 1st paragraph, for allegedly containing subject matter which was not described in the specification in such as way as to enable one of skill in the art to make and/or use the invention. Specifically, the Examiner contends that the specification lacks sufficient clarity with respect to the public availability of the biological materials encompassed within these claims. Applicants' representative note for the record the Examiner's indication that such rejection would be overcome by appropriate deposit of the claimed materials with a depository as set forth in 37 C. F. R. §§ 1.801-1.809, and present the accompanying request for continuing examination and deferral for the purpose of investigating the necessary procedures for fulfilling such requirement with respect to the claimed subject matter. Applicants appreciate the helpful suggestion of the Examiner in overcoming this rejection.

2.7 THE REJECTION OF CLAIMS 46, 56-58, AND 60 UNDER 35 U. S. C. §102(B) AND THE REJECTION OF CLAIMS 41-48 AND 50-60 UNDER 35 U. S. C. §103 ARE NOTED.

Applicants note for the record the Examiner's maintenance of the rejections of various claims under 35 U. S. C. §102 and 35 U. S. C. §103 previously advanced in the case. Without acquiescing in any way as to the merits of these rejections, for economic considerations of the client and to more fully understand the Examiner's position with respect to the alleged teachings of these references, Applicants' new undersigned representative respectfully defers remarks directed to overcoming such rejections until after an Interview is conducted with Examiner Leffers to discuss the merits of the case and the pending claims as amended herein. To facilitate entry of these remarks in a subsequent paper, Applicants hereby elect to proceed as outlined below:

2.8 REQUEST FOR EXAMINER INTERVIEW

Owing to a change of counsel for Applicants, and pursuant to M. P. E. P. § 713.01 and 37 C. F. R. §1.133, Applicants hereby request the scheduling of an Interview with Examiner Leffers and Applicants' new undersigned representative, Dr. Mark D. Moore, to discuss the pending claims as are now in condition for allowance, and to address any particular remaining issues in the mind of the Examiner, once he has had the opportunity to review this response and accompanying amendment. A telephone call to the Applicants' new undersigned representative is earnestly solicited to arrange such interview within the next 30 days. In order that Applicants have sufficient time to address any remaining issues following the conclusion of such an interview, Applicants' new representative has also submitted a 90-day deferral request herewith, pursuant to 37 C. F. R. § 1.103(c), as well as a Request for Continuing Examination pursuant to 37 C. F. R. § 1.114, to facilitate the continued prosecution of the pending claims on the merit

after entry of the final office action.

Should the Examiner have any questions concerning the accompanying amendment, response and related papers, a telephone call to the undersigned Applicants' representative would be appreciated.

Respectfully submitted,

Date: August 28, 2001

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AGENT FOR APPLICANTS

APPENDIX A

Claims pending after entry of the accompanying amendment:

41. A recombinant herpes simplex virus ICP27 deletion mutant (rHSV d27.1rc virus) comprising an adeno associated virus *cap* gene and an adeno associated *rep* gene each operably linked to a homologous or a heterologous promoter.

42. The rHSV d27.1rc virus of claim 41, wherein said homologous promoter comprises a p5, p19 or p40 promoter.

43. The rHSV d27.1rc virus of claim 41, wherein the heterologous promoter is CMV 40, HIV LTR, HCMV IE or HSV 110.

44. The rHSV d27.1rc virus of claim 41, wherein the herpes simplex virus is herpes simplex-1 or herpes simplex virus-6.

45. The rHSV d27.1rc virus of claim 41, wherein said adeno associated virus *cap* gene or said adeno associated *rep* gene is obtained from an adeno-associated virus selected from the group consisting of AAV-1, AAV-2, AAV-3, AAV-4, AAV-5, and AAV-6.

46. A recombinant herpes simplex virus mutant comprising an adeno associated virus *rep* gene and an adeno associated virus *cap* gene, each operably associated with a promoter

wherein said mutant comprises a deletion or an alteration of a non-essential gene for helper virus function in replication of an adeno-associated virus.

47. The recombinant herpes simplex virus mutant of claim 46, wherein the mutant is an alteration in IE63 immediate early gene effective to increase expression of ICP8 protein.

48. The recombinant herpes simplex virus mutant of claim 46, wherein said mutant fails to express ICP27 protein.

49. The recombinant herpes simplex virus mutant of claim 46, wherein the mutant fails to express glycoprotein H.

50. A recombinant herpes simplex virus vector comprising an adeno-associated virus *cap* coding sequence, an adeno-associated virus *rep* coding sequence, each operably associated with a promoter comprised within a mutant herpes simplex wherein said vector comprises a mutation in immediate early gene IE63 effective to alter expression of ICP8 protein.

51. The recombinant herpes simplex virus vector of claim 50, wherein said mutation is effective to decrease expression of ICP27 protein.

52. The recombinant herpes simplex virus vector of claim 50, wherein said mutant herpes simplex virus is HSV-1 or HSV-6.

53. The recombinant herpes simplex virus vector of claim 50, wherein said adeno associated virus *cap* gene or said adeno associated *rep* gene is obtained from an adeno-associated virus selected from the group consisting of AAV-1, AAV-2, AAV-3, AAV-4, AAV-5, and AAV-6.

54. The recombinant herpes simplex virus vector of claim 50, wherein the AAV rep coding sequence is operably linked to promoter p5, p19 or p40.

55. The recombinant herpes simplex virus vector of claim 50, wherein the AAV cap coding sequence is operably linked to a promoter selected from the group consisting of p5, p19 and p40.

56. A kit comprising (a) a viral vector, said viral vector comprising:

an AAV *rep* coding sequence operably linked to a promoter;

an AAV *cap* coding sequence operably linked to a promoter; and

HSV-1 helper function coding sequences for AAV replication, said coding sequences comprising coding sequences for replication proteins comprising UL5, UL8, UL52 and UL29; and

(b) instructions for use of said vector.

57. A kit comprising the recombinant herpes simplex virus vector of claim 50, and instructions for use.

58. A DNA segment comprising an AAV-2 rep coding sequence operably linked to a promoter, an AAV-2 cap coding sequence operably linked to a promoter and at least a

first sequence that encodes a Herpes simplex viral protein selected from the group consisting of UL5, UL8, UL52, and UL29.

59. The DNA segment of claim 59, comprised within recombinant herpes simplex virus vector d27.1.

60. A kit comprising the DNA segment of claim 58, and instructions for using said DNA segment.

61. The recombinant herpes simplex virus ICP27 deletion mutant of claim 41, identified as recombinant herpes simplex virus rHSV d27.1rc (ATCC XXXXX).

62. The DNA segment of claim 59, comprised within the recombinant herpes simplex viral vector identified as rHSV d27.1rc (ATCC XXXXX).